

AMENDMENT UNDER 37 C.F.R. § 1.111

Application Serial No. 09/582,495

7. (Amended) A process for producing a hydrogenated ester according to claim 30, wherein the unsaturated group-containing ester represented by the general formula (1) is at least one compound selected from the group consisting of: allyl acetate, crotyl acetate, methallyl acetate, allyl propionate, crotyl propionate, methallyl propionate, vinyl acetate, vinyl propionate, 1,3-butadienyl acetate, and 1,3-butadienyl propionate.

8. (Amended) A process for producing a hydrogenated ester according to claim 30, wherein the hydrogenating catalyst comprises at least one element selected from the group consisting of Group VIII elements, Group IX elements and Group X elements in the periodic table.

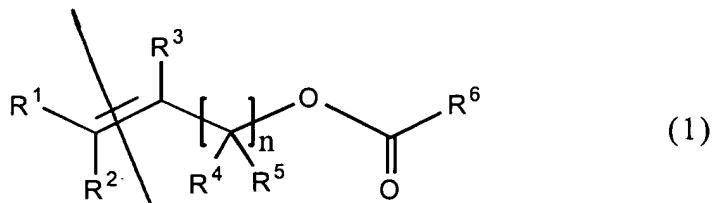
9. (Amended) A process for producing a hydrogenated ester according to claim 30, wherein the hydrogenation reaction is conducted by a liquid-phase reaction by use of a fixed bed-type reactor.

13. (Amended) A process for producing a hydrogenated ester according to claim 10, wherein the allyl-type ester represented by the general formula (1) is at least one species of allyl-type ester selected from the group consisting of allyl acetate, crotyl acetate, methallyl acetate, allyl propionate, crotyl propionate, and methallyl propionate.

Please add the following new claims:

30. (New) A process for producing a hydrogenated ester by hydrogenating an unsaturated group-containing ester represented by the following general formula (1) in the presence of a hydrogenating catalyst so as to produce a hydrogenated ester corresponding to the unsaturated group-containing ester

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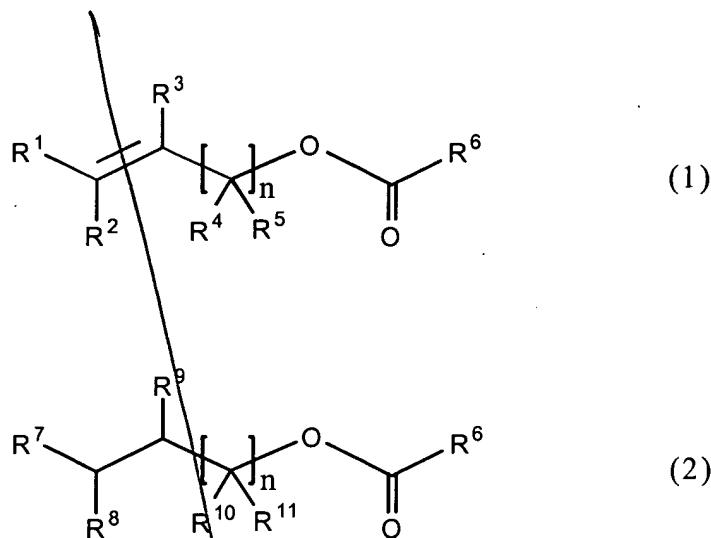
wherein R¹, R², R³, R⁴ and R⁵ denote an arbitrary alkyl group containing 1-10 carbon atoms, an arbitrary alkenyl group containing 1 - 10 carbon atoms, or a hydrogen atom and may be the same as or different from each other; the alkyl group and alkenyl group may be either straight-chain or branched; R⁶ denotes an arbitrary alkyl group which contains 1 - 10 carbon atoms and may be either straight-chain or branched; and n is 0 or 1, comprising

providing an unsaturated group-containing ester represented by the general formula (1), wherein the concentration of the unsaturated group-containing ester represented by general formula (1) at the initial time of the hydrogenation reaction thereof is in the range of 1 wt % -50 wt % based on the entirety of the raw material liquid containing the unsaturated group-containing ester; and

reacting the unsaturated group containing ester by diluting said unsaturated group-containing ester with an inert solvent to effectuate a hydrogenation reaction.

31. (New) A process for producing a hydrogenated ester, wherein an unsaturated group-containing ester represented by the general formula (1) is hydrogenated by using a hydrogenating catalyst which contains at least one metal selected from the group consisting of Group VIII elements, Group IX elements, and Group X elements in the periodic table, and is to be used for hydrogenating an unsaturated group-containing ester represented by the following formula (1) to thereby produce a hydrogenated ester represented by the following formula (2), wherein the catalyst has an acidity of 1.0×10^{-1} mol/g or less:

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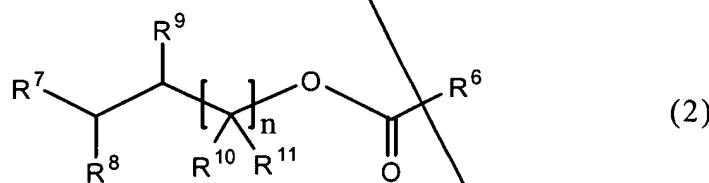
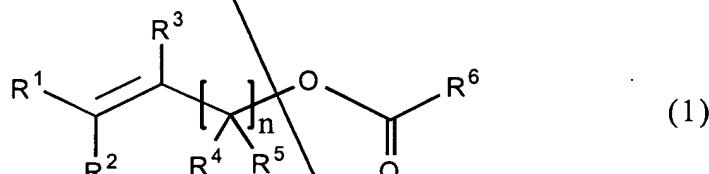
wherein n represents 0 or 1; R¹, R², R³, R⁴ and R⁵ denote an arbitrary alkyl group containing 1-10 carbon atoms, an arbitrary alkenyl group containing 1 - 10 carbon atoms, or a hydrogen atom and may be the same as or different from each other; the alkyl group and alkenyl group may be either straight-chain or branched; R⁶ represents a C₁-C₁₀ alkyl group; and each of R⁷, R⁸, R⁹, R¹⁰, and R¹¹ represents a C₁-C₁₀ alkyl group, a C₁-C₁₀ alkenyl group, or a hydrogen atom independently to each other.

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32. (New) A process for producing a hydrogenated ester according to claim 31, wherein the hydrogenating catalyst selected from at least one metal selected from the group consisting of Group VIII elements, Group IX elements, and Group X elements in the periodic table is at least one species selected from the group consisting of palladium, ruthenium and rhodium.

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~~33.~~ (New) A process for producing a hydrogenated ester, wherein at least one species of an unsaturated group-containing ester selected from the group consisting of allyl acetate, crotyl acetate, methallyl acetate, allyl propionate, crotyl propionate, methallyl propionate, vinyl acetate, 1,3-butadienyl acetate, 1-methyl-1-propenyl acetate, vinyl propionate, 1,3-butadienyl propionate, and 1-methyl-1-propenyl propionate is hydrogenated by using a hydrogenating catalyst which contains at least one metal selected from the group consisting of Group VIII elements, Group IX elements, and Group X elements in the periodic table, and is to be used for hydrogenating an unsaturated group-containing ester represented by the following formula (1) to thereby produce a hydrogenated ester represented by the following formula (2), wherein the catalyst has an acidity of 1.0×10^{-1} mol/g or less:



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wherein n represents 0 or 1; R¹, R², R³, R⁴ and R⁵ denote an arbitrary alkyl group containing 1-10 carbon atoms, an arbitrary alkenyl group containing 1 - 10 carbon atoms, or a hydrogen atom and may be the same as or different from each other; the alkyl group and alkenyl group may be either straight-chain or branched; R⁶ represents a C₁-C₁₀ alkyl group; and each of R⁷, R⁸, R⁹, R¹⁰,

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and R^{11} represents a C_1-C_{10} alkyl group, a C_1-C_{10} alkenyl group, or a hydrogen atom independently to each other.

34. (New) A process for producing a hydrogenated ester according to claim 33, wherein the hydrogenating catalyst selected from at least one metal selected from the group consisting of Group VIII elements, Group IX elements, and Group X elements in the periodic table is at least one species selected from the group consisting of palladium, ruthenium and rhodium.

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